# CITY OF ATLANTA POLICE OFFICERS' PENSION FUND

ACTUARIAL VALUATION
AS OF JULY 1, 2012

DETERMINES THE CONTRIBUTION FOR THE 2013/14 FISCAL YEAR



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March 11, 2013

#### Introduction

This report presents the results of the July 1, 2012 actuarial valuation of the City of Atlanta Police Officers' Pension Fund. This valuation is based upon the participant data provided as of July 1, 2012 by the plan administrator and asset information provided as of June 30, 2012 by the plan auditor. Except for a cursory review for reasonableness, we have not attempted to verify the accuracy of this information.

The primary purpose of this report is to provide a summary of the funded status of the plan as of July 1, 2012 and to determine the minimum required contribution under Georgia Code Section 47-20-10 for the City's 2013/14 fiscal year. In addition, this report provides a projection of the long-term funding requirements of the plan, accounting disclosures pursuant to Governmental Accounting Standards Board Statement Nos. 25 and 27 (GASB 25/27), statistical information concerning the assets held in the trust, statistical information concerning the participant population, and a summary of any recent plan changes.

The liabilities and cost presented in this report are based on numerous assumptions concerning the cost of benefits to be provided in the future, long-term investment returns, and the future demographic experience of the current participants. Anyone referring to this report should remember that the cost developed herein is only an <u>estimate</u> of the true cost of providing post-employment pension benefits. No one can predict with certainty whether the true cost will be higher or lower than the cost presented in this report. The calculated cost is entirely dependent upon the assumptions that are described in Table V-A. If any of the assumptions is changed, then the cost shown in this report will change accordingly. Likewise, if any of the assumptions is not completely realized, then the cost shown in this report will change in the future.

Certain assumptions play a bigger role than others in determining the cost of the post-employment pension benefits. In some cases, relatively small changes in a particular assumption can have a dramatic impact on the anticipated cost of benefits. Although a thorough analysis of the impact of such changes is beyond the scope of this report, Table I-B illustrates the impact that alternative long-term investment returns would have on the minimum required contribution rate.

### Minimum Required Contribution

Table I-A shows the development of the minimum required contribution for the City's 2013/14 fiscal year. The minimum required contribution rate is 32.88% of covered payroll, which represents a decrease of 1.73% of payroll from the prior valuation.

Table I-C provides a breakdown of the sources of change in the contribution rate. Significantly, the rate increased by 3.72% of payroll due to investment losses and decreased by 5.40% due to demographic experience. The market value



of assets only earned 0.51% during the 2011/12 plan year, whereas a 7.75% annual investment return is required to maintain a stable contribution rate.

Georgia Code Section 47-20-10 sets forth many of the rules concerning the minimum required contribution for public pension plans within the state. Essentially, the City will meet the minimum funding requirement if the employer contributions are at least equal to the annual required contribution under GASB 25/27. In addition, Georgia Code Section 47-20-13 exempts public plan sponsors from the minimum funding requirements if the plan's actuarial value of assets exceeds 150% of the present value of accumulated retirement system benefits.

Based on the current assets, participant data, and actuarial assumptions and methods that are used to value the plan, the present-day value of the total long-term funding requirement is \$1,216,563,428. As illustrated in Table I-A, current assets are sufficient to cover \$733,546,000 of this amount, the employer's expected contribution for the 2012/13 plan year will cover \$30,559,558 of this amount, the employer's expected contribution for the 2013/14 plan year will cover \$30,196,842 of this amount, and future employee contributions will cover \$82,976,265 of this amount, leaving \$339,284,763 to be covered by future employer funding. Again, demographic and investment experience that differs from that assumed will either increase or decrease the future employer funding requirement.

#### Contents of the Report

Tables I-D through I-G provide a detailed breakdown of various liability amounts by type of benefit and by participant group. Tables II-A through II-C provide information needed by both the plan's and the employer's accountants in order to prepare the relevant financial statements that cover the period July 1, 2012 through June 30, 2013. Tables III-A through III-F provide information concerning the assets of the trust fund. Specifically, Table III-A shows the development of the actuarial value of assets, which is based on the market value. Tables IV-A through IV-F provide statistical information concerning the plan's participant population. In particular, Table IV-F gives a 10-year projection of the cash that is expected to be required from the trust fund in order to pay benefits to the current group of participants. Finally, Tables V-A through VI-B provide a summary of the actuarial assumptions and methods that are used to value the plan's benefits and of the relevant plan provisions as of July 1, 2012, as well as a summary of the changes that have occurred since the previous valuation report was prepared.

### Plan Amendment

Since the previous valuation report was prepared, the plan has been amended effective November 1, 2011 to increase the employee contribution rate by 5% of salary for those employees hired during the period 1984 through August 31, 2011. In addition, benefits have been changed for employees hired after August 31, 2011 as follows:

- The benefit formula multiplier has been reduced to 1.00% with a maximum benefit equal to 80% of average monthly earnings;
- (2) The employee contribution rate has been reduced to 8.00% of plan compensation;



- (3) The averaging period has been increased to 10 years for purposes of determining average monthly earnings;
- (4) The normal retirement age has been increased to age 57;
- (5) The earliest retirement age is age 47 for those individuals who have earned less than 30 years of service;
- (6) The early retirement reduction has been increased to 6.00% per year;
- (7) Unused sick leave is excluded from plan compensation;
- (8) The automatic annual cost-of-living adjustment (COLA) has been limited to 1.00% per year; and
- (9) The normal form of payment has been changed to a single life annuity with a survivor pension equal to 75% of an actuarially adjusted pension, where the actuarial adjustment is equal to the ratio on the date of death of the present value of the remaining life annuity payable to the retiree to the present value of a life annuity payable to the beneficiary.

The plan changes described above reduced the minimum required contribution by 0.05% of payroll for the 2013/14 plan year.

#### Certification

This actuarial valuation was prepared by me or under my direct supervision and I acknowledge responsibility for the results. To the best of my knowledge, the results are complete and accurate and, in my opinion, the techniques and assumptions used are reasonable and meet the requirements and intent of Georgia Code Section 47-20-10. There is no benefit or expense to be provided by the plan and/or paid from the plan's assets for which liabilities or current costs have not been established or otherwise taken into account in the valuation. All known events or trends which may require a material change in plan costs or required contribution rates have been taken into account in the valuation.

For the firm,

Charles T. Carr

Consulting Actuary
Southern Actuarial Services Company, Inc.

Enrolled Actuary No. 11-04927

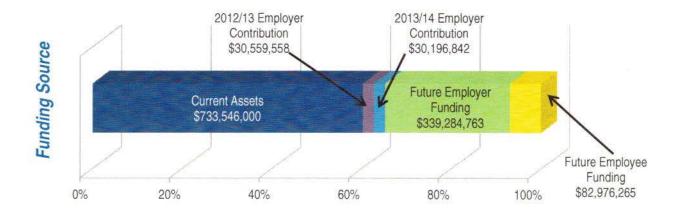
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The individual above is a member of the American Academy of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



# Minimum Required Contribution

# Table I-A



### For the 2013/14 Fiscal Year

Entry Age Normal Cost for the 2012/13 Plan Year Unfunded Liability Amortization Payment for the 2012/13 Plan Year	\$21,560,493 \$17,662,064
Expense Allowance for the 2012/13 Plan Year	\$441,485
Expected Employee Contribution for the 2012/13 Plan Year	(\$10,586,799)
Adjustment to Reflect Semi-Monthly Employer Contributions	\$1,145,688
	\$30,222,931
Expected Employer Contribution for the 2012/13 Plan Year	(\$30,559,558)
Remaining Contribution Due/(Credit) for the 2012/13 Plan Year	(\$336,627)
	x 0.0775
One Year's Interest Charge/(Credit) on the Remaining Contribution	(\$26,089)
Preliminary Employer Contribution for the 2013/14 Fiscal Year	\$30,196,842
Expected Payroll for the 2013/14 Fiscal Year	÷ \$91,828,779
Minimum Required Contribution Rate	32.88%

(The actual contribution should be based on the minimum required contribution rate multiplied by the actual payroll for the fiscal year.)

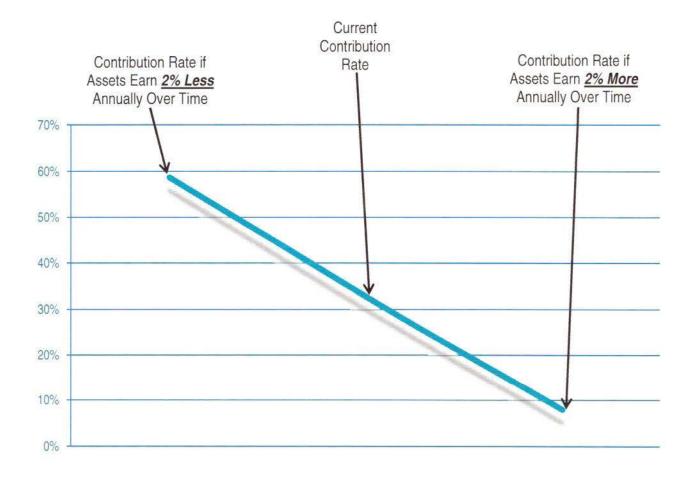
### Additional Disclosures

Present Value of Future Compensation	\$692,011,626
Present Value of Future Employer Contributions	\$400,041,163
Present Value of Future Employee Contributions	\$82,976,265



# Sensitivity Analysis

Table I-B



The line above illustrates the sensitivity of the contribution rate to changes in the long-term investment return.



# Gain and Loss Analysis

# Table I-C

### Source of Change in the Contribution Rate

Previous minimum required contribution rate	34.61%
Increase (decrease) due to investment gains and losses Increase (decrease) due to demographic experience	3.72% -5.40%
Increase (decrease) due to plan amendments Increase (decrease) due to actuarial assumption changes Increase (decrease) due to actuarial method changes	-0.05% 0.00% 0.00%
Current minimum required contribution rate	32.88%

### Source of Change in the Unfunded Liability

Source of Change in the Unfunded Liability	
Previous unfunded liability	\$300,531,393
Increase due to interest Decrease due to amortization payments Increase (decrease) due to plan experience	\$23,291,183 (\$15,981,296) \$18,010,952
Increase (decrease) due to plan amendments Increase (decrease) due to actuarial assumption changes Increase (decrease) due to actuarial method changes	(\$36,448) \$0 \$0
Current unfunded liability	\$325,815,784



# Present Value of Future Benefits

# Table I-D

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	\$476,343,136	\$475,983,347	\$475,983,347
Termination benefits	\$23,418,536	\$23,394,093	\$23,394,093
Disability benefits	\$26,092,422	\$26,086,042	\$26,086,042
Death benefits	\$1,469,765	\$1,479,215	\$1,479,215
Refund of employee contributions	\$1,272,222	\$1,267,323	\$1,267,323
Sub-total	\$528,596,081	\$528,210,020	\$528,210,020
Deferred Vested Participants			
Retirement benefits	\$1,462,736	\$1,462,736	\$1,462,736
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$1,462,736	\$1,462,736	\$1,462,736
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$584,832,794	\$584,832,794	\$584,832,794
Disability retirements	\$51,180,602	\$51,180,602	\$51,180,602
Beneficiaries receiving	\$47,417,218	\$47,417,218	\$47,417,218
DROP participants	\$0	\$0	\$0
Sub-total	\$683,430,614	\$683,430,614	\$683,430,614
Grand Total	\$1,213,489,431	\$1,213,103,370	\$1,213,103,370



# Present Value of Accrued Benefits

Table I-E

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	\$249,655,744	\$249,621,623	\$249,621,623
Termination benefits	\$11,458,618	\$11,458,618	\$11,458,618
Disability benefits	\$18,444,890	\$18,443,203	\$18,443,203
Death benefits	\$758,349	\$764,096	\$764,096
Refund of employee contributions	\$706,660	\$706,660	\$706,660
Sub-total	\$281,024,261	\$280,994,200	\$280,994,200
Deferred Vested Participants			
Retirement benefits	\$1,462,736	\$1,462,736	\$1,462,736
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$1,462,736	\$1,462,736	\$1,462,736
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$584,832,794	\$584,832,794	\$584,832,794
Disability retirements	\$51,180,602	\$51,180,602	\$51,180,602
Beneficiaries receiving	\$47,417,218	\$47,417,218	\$47,417,218
DROP participants	\$0	\$0	\$0
Sub-total	\$683,430,614	\$683,430,614	\$683,430,614
Grand Total	\$965,917,611	\$965,887,550	\$965,887,550



# Present Value of Vested Benefits

Table I-F

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	\$226,272,509	\$226,244,018	\$226,244,018
Termination benefits	\$10,036,167	\$10,036,167	\$10,036,167
Disability benefits	\$18,444,890	\$18,443,203	\$18,443,203
Death benefits	\$756,280	\$762,027	\$762,027
Refund of employee contributions	\$1,956,849	\$1,956,849	\$1,956,849
Sub-total	\$257,466,695	\$257,442,264	\$257,442,264
Deferred Vested Participants			
Retirement benefits	\$1,462,736	\$1,462,736	\$1,462,736
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$1,462,736	\$1,462,736	\$1,462,736
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$584,832,794	\$584,832,794	\$584,832,794
Disability retirements	\$51,180,602	\$51,180,602	\$51,180,602
Beneficiaries receiving	\$47,417,218	\$47,417,218	\$47,417,218
DROP participants	\$0	\$0	\$0
Sub-total	\$683,430,614	\$683,430,614	\$683,430,614
Grand Total	\$942,360,045	\$942,335,614	\$942,335,614



# Entry Age Normal Accrued Liability

Table I-G

	Old Assumptions	Old Assumptions	New Assumptions
	w/o Amendment	w/ Amendment	w/ Amendment
Actively Employed Participants			
Retirement benefits	\$339,825,075	\$339,795,785	\$339,795,785
Termination benefits	\$15,334,298	\$15,330,446	\$15,330,446
Disability benefits	\$17,563,782	\$17,560,822	\$17,560,822
Death benefits	\$958,682	\$960,041	\$960,041
Refund of employee contributions	\$823,045	\$821,340	\$821,340
Sub-total	\$374,504,882	\$374,468,434	\$374,468,434
Deferred Vested Participants			
Retirement benefits	\$1,462,736	\$1,462,736	\$1,462,736
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$1,462,736	\$1,462,736	\$1,462,736
Due a Refund of Contributions	\$0	\$0	\$0
Deferred Beneficiaries	\$0	\$0	\$0
Retired Participants			
Service retirements	\$584,832,794	\$584,832,794	\$584,832,794
Disability retirements	\$51,180,602	\$51,180,602	\$51,180,602
Beneficiaries receiving	\$47,417,218	\$47,417,218	\$47,417,218
DROP participants	\$0	\$0	\$0
Sub-total	\$683,430,614	\$683,430,614	\$683,430,614
Grand Total	\$1,059,398,232	\$1,059,361,784	\$1,059,361,784
less Actuarial Value of Assets	(\$733,546,000)	(\$733,546,000)	(\$733,546,000)
Unfunded Accrued Liability	\$325,852,232	\$325,815,784	\$325,815,784



# Entry Age Normal Cost

Table I-H

	Old Assumptions w/o Amendment	Old Assumptions w/ Amendment	New Assumptions w/ Amendment
Actively Employed Participants			
Retirement benefits	\$17,727,308	\$17,693,197	\$17,693,197
Termination benefits	\$1,631,511	\$1,628,063	\$1,628,063
Disability benefits	\$1,881,904	\$1,880,185	\$1,880,185
Death benefits	\$81,908	\$83,176	\$83,176
Refund of employee contributions	\$277,525	\$275,872	\$275,872
Sub-total	\$21,600,156	\$21,560,493	\$21,560,493
Deferred Vested Participants			
Retirement benefits	\$0	\$0	\$0
Termination benefits	\$0	\$0	\$0
Disability benefits	\$0	\$0	\$0
Death benefits	\$0	\$0	\$0
Refund of employee contributions	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Due a Refund of Contributions	\$0	\$0	\$0
<u>Deferred Beneficiaries</u>	\$0	\$0	\$0
Retired Participants			
Service retirements	\$0	\$0	\$0
Disability retirements	\$0	\$0	\$0
Beneficiaries receiving	\$0	\$0	\$0
DROP participants	\$0	\$0	\$0
Sub-total	\$0	\$0	\$0
Grand Total	\$21,600,156	\$21,560,493	\$21,560,493



# **Accounting Results**

# GASB 25/27 Results Table II-A

### Development of the Net Pension Obligation (Asset)

Net Pension Obligation (Asset) as of July 1, 2012	\$0
Net Increase (Decrease) in NPO	\$0
Employer Contributions for the 2011/12 Plan Year	(\$33,748,000)
Annual Pension Cost for the 2011/12 Plan Year	\$33,748,000
Net Pension Obligation (Asset) as of July 1, 2011	\$0

### For the 2013/14 Plan Year

Development of the Annual Requ	uired Contribution (ARC)
--------------------------------	--------------------------

Annual Required Contribution (ARC)	\$30,196,842
Interest Adjustment	\$1,119,599
Amortization of the Net Pension Obligation (Asset)	\$0
Expense Allowance	\$441,485
Amortization of the UAAL	\$17,662,064
Employer Normal Cost	\$10,973,694

### Development of the Annual Pension Cost (APC)

Annual Required Contribution (ARC)	\$30,196,842
Interest on the Net Pension Obligation (Asset)	\$0
Adjustment to the ARC	\$0
Annual Pension Cost (APC)	\$30,196,842



### GASB 25/27 Disclosures

Table II-B

### Schedule of Employer Contributions

	Annual		Annual	
Year Ended	Required	%	Pension	%
June 30	Contribution	Contrib.	Cost	Contrib.
2007	\$47,365,000	100%	\$47,365,000	100%
2008	\$45,730,000	100%	\$45,730,000	100%
2009	\$44,810,000	100%	\$44,810,000	100%
2010	\$41,712,000	100%	\$41,712,000	100%
2011	\$39,135,000	100%	\$39,135,000	100%
2012	\$33,748,000	100%	\$33,748,000	100%

### Schedule of Funding Progress

	(1)	(2)	(3)	(4)	(5)	(6)
		Actuarial				UAAL
Actuarial	Actuarial	Accrued	Unfunded			as % of
Valuation	Value of	Liability	AAL	Funded	Covered	Covered
Date	Assets	(AAL)	(UAAL)	Ratio	Payroll	Payroll
			(2) - (1)	$(1) \div (2)$		$(3) \div (5)$
January 1, 2008	\$596,457,000	\$909,410,000	\$312,953,000	65.59%	\$84,016,000	372.49%
January 1, 2009	\$571,768,000	\$986,376,000	\$414,608,000	57.97%	\$82,030,000	505.43%
January 1, 2010	\$591,980,609	\$990,600,036	\$398,619,427	59.76%	\$78,519,495	507.67%
January 1, 2011	\$697,667,506	\$1,056,240,007	\$358,572,501	66.05%	\$83,550,807	429.17%
July 1, 2011	\$735,470,000	\$1,036,001,393	\$300,531,393	70.99%	\$73,688,100	407.84%
July 1, 2012	\$733,546,000	\$1,059,361,784	\$325,815,784	69.24%	\$88,296,903	369.00%

### **Additional Information**

Valuation Date July 1, 2012

Actuarial Cost Method Entry age normal

Amortization Method Level percentage, closed

Remaining Amortization Period 29 years

Asset Valuation Method Market value

Discount Rate 7.75%

Salary Increase Rate 4.00%



# SFAS 35 Disclosures

Table II-C

### Actuarial Present Value of Accrued Benefits

	As of July 1, 2011	As of July 1, 2012
Vested Benefits		
Participants currently receiving benefits	\$682,531,253	\$683,430,614
Other participants	\$254,164,974	\$258,905,000
Sub-total	\$936,696,227	\$942,335,614
Non-Vested Benefits	\$22,086,797	\$23,551,936
Total Benefits	\$958,783,024	\$965,887,550
Funded Percentage (based on the market value of assets)	76.71%	75.95%

### Statement of Change in Actuarial Present Value of Accrued Benefits

Actuarial Present Value as of July 1, 2011	\$958,783,024
Increase (Decrease) Due To:	
Interest	\$74,305,684
Benefits accumulated	(\$18,425,097)
Benefits paid	(\$48,746,000)
Plan amendments	(\$30,061)
Changes in actuarial methods and assumptions	\$0
Net increase (decrease)	\$7,104,526
Actuarial Present Value as of July 1, 2012	\$965,887,550



### Actuarial Value of Assets

### Table III-A

Market Value of Assets as of July 1, 2012 \$733,546,000

Minus advance employer contributions \$0

Actuarial Value of Assets as of July 1, 2012 \$733,546,000

#### **Historical Actuarial Value of Assets** January 1, 2004 N/A January 1, 2005 N/A January 1, 2006 N/A January 1, 2007 N/A January 1, 2008 \$596,457,000 January 1, 2009 \$571,768,000 January 1, 2010 \$591,980,609 January 1, 2011 \$697,667,506 July 1, 2011 \$735,470,000

\$733,546,000

July 1, 2012

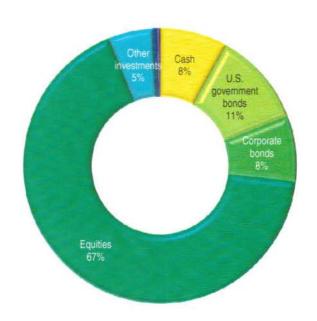


# Market Value of Assets

# Table III-B

### As of July 1, 2012

Market Value of Assets	\$733,546,000
Cash	\$58,912,000
U.S. government bonds	\$82,214,000
Corporate bonds	\$56,304,000
Equities	\$495,410,000
Other investments Interest receivable	\$39,021,000 \$1,624,000
Employer contribution receivable	\$1,792,000
Employee contribution receivable	\$522,000
Due to brokers	(\$2,051,000)
Other accounts payable	(\$202,000)



#### Historical Market Value of Assets

motoriour market	Tuluc of Addeta
January 1, 2004	N/A
January 1, 2005	N/A
January 1, 2006	N/A
January 1, 2007	N/A
January 1, 2008	\$561,226,686
January 1, 2009	\$516,308,590
January 1, 2010	\$614,490,006
January 1, 2011	\$697,667,506
July 1, 2011	\$735,470,000
July 1, 2012	\$733,546,000



# Investment Return

# Table III-C



Plan	Value	Value	Assumed
Year	Return	Return	Return
2003	N/A	N/A	N/A
2004	N/A	N/A	N/A
2005	N/A	N/A	N/A
2006	N/A	N/A	N/A
2007	N/A	N/A	N/A
2008	-9.85%	-5.92%	7.75%
2009	18.40%	3.02%	7.75%
2010	12.93%	17.21%	7.75%
2011	5.37%	5.37%	3.80%
2011/12	0.51%	0.51%	7.75%



Asset Reconciliation		Table III-D
	Market Value	Actuarial Value
As of July 1, 2011	\$735,470,000	\$735,470,000
Increases Due To:		
Employer Contributions	\$33,748,000	\$33,748,000
Employee Contributions	\$9,541,000	\$9,541,000
Total Contributions	\$43,289,000	\$43,289,000
Interest and Dividends	\$13,407,000	
Gains (Losses) Total Investment Income	(\$6,450,000) \$6,957,000	\$3,725,000
Other Income	\$12,000	
Total Income	\$50,258,000	\$47,014,000
Decreases Due To:		
Benefit Payments	(\$48,746,000)	(\$48,746,000)
Total Benefit Payments	(\$48,746,000)	(\$48,746,000)
Investment Expenses Administrative Expenses	(\$3,244,000) (\$192,000)	(\$192,000)
Advance Employer Contribution		\$0
Total Expenses	(\$52,182,000)	(\$48,938,000)
As of July 1, 2012	\$733,546,000	\$733,546,000



# Historical Trust Fund Detail

Table III-E

### Income

Plan	Employer	Employee	Interest /	Gains /	Other
Year	Contribs.	Contribs.	<u>Dividends</u>	Losses	Income
2003	N/A	N/A	N/A	N/A	N/A
2004	N/A	N/A	N/A	N/A	N/A
2005	N/A	N/A	N/A	N/A	N/A
2006	N/A	N/A	N/A	N/A	N/A
2007	N/A	N/A	N/A	N/A	N/A
2008	\$44,433,944	\$5,632,058	\$19,659,840	-\$73,068,655	\$306,310
2009	\$41,213,384	\$7,428,867	\$10,062,495	\$86,832,237	\$412,899
2010	\$40,422,017	\$6,522,505	\$10,973,135	\$71,141,601	\$110,624
2011	\$19,567,500	\$3,366,500	\$5,409,500	\$33,529,994	\$0
2011/12	\$33,748,000	\$9,541,000	\$13,407,000	-\$6,450,000	\$12,000

### Expenses Other Actuarial Adjustments

					Advance
Plan		Benefit	Admin.	Invest.	Employer
Year		<u>Payments</u>	Expenses	Expenses	Contribs.
	2003	N/A	N/A	N/A	N/A
	2004	N/A	N/A	N/A	N/A
	2005	N/A	N/A	N/A	N/A
	2006	N/A	N/A	N/A	N/A
	2007	N/A	N/A	N/A	N/A
	2008	\$38,530,904	\$607,811	\$2,742,878	\$0
	2009	\$44,024,211	\$1,692,242	\$2,052,013	\$0
	2010	\$43,378,646	\$54,705	\$2,559,031	\$0
	2011	\$22,588,000	\$40,500	\$1,442,500	\$0
2	2011/12	\$48,746,000	\$192,000	\$3,244,000	\$0

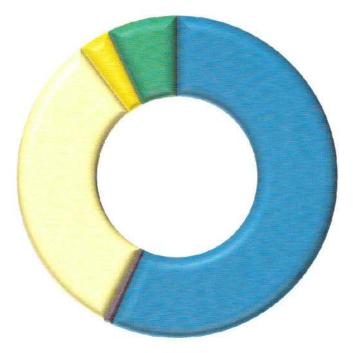
Note: Amounts shown for the 2011 short plan year are estimated.



# Summary of Participant Data

# Table IV-A

# As of July 1, 2012



Partici	pant	Distribution	on by S	Status
a comment of the comment of	F-1-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-	The second secon		

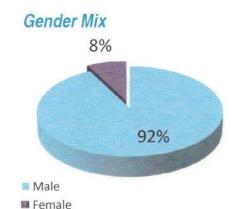
Actively Employed Participants	
Active Participants	1,870
DROP Participants	0
Inactive Participants	
Deferred Vested Participants	29
Due a Refund of Contributions	0
Deferred Beneficiaries	0
Participants Receiving a Benefit	
Service Retirements	1,064
Disability Retirements	106
Beneficiaries Receiving	232
Total Participants	3,301

		3 Included	in Prior Va	iuations	
	Active	DROP	Inactive	Retired	Total
January 1, 2004	1,488	0	0	1,013	2,501
January 1, 2005	1,638	0	0	1,041	2,679
January 1, 2006	1,775	0	0	1,115	2,890
January 1, 2007	1,735	0	0	1,204	2,939
January 1, 2008	1,811	0	0	1,272	3,083
January 1, 2009	1,639	0	0	1,355	2,994
January 1, 2010	1,574	0	3	1,293	2,870
January 1, 2011	1,554	0	18	1,345	2,917
July 1, 2011	1,639	0	29	1,401	3,069
July 1, 2012	1,870	0	29	1,402	3,301



# Active Participant Data

### Table IV-B



#### As of July 1, 2012

Average Age
Average Service

Total Annualized Compensation for the Prior Year
Total Expected Compensation for the Current Year
Average Increase in Compensation for the Prior Year
Expected Increase in Compensation for the Current Year
Accumulated Contributions for Active Employees

37.4 years
9.5 years
\$88,296,379

N/A

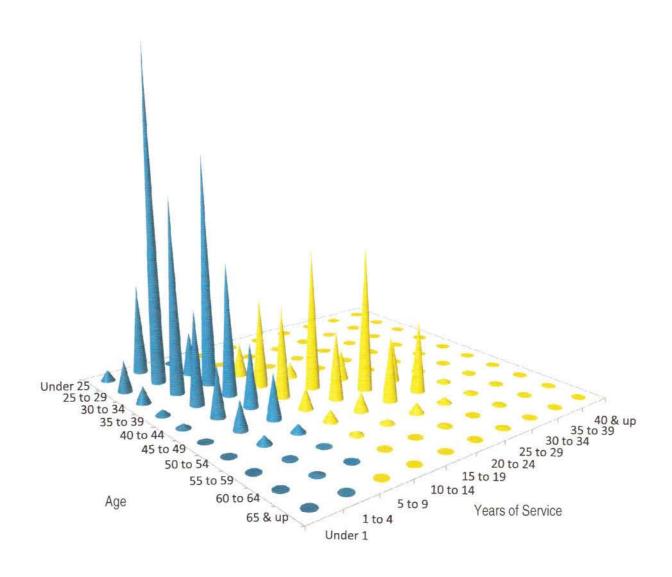
Expected Increase in Compensation for the Prior Year
4.00%

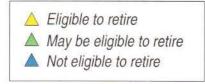
### Actual vs. Expected Salary Increases



#### **Active Participant Statistics From Prior Valuations** Average Average Expected Actual Average Average Salary Salary Average Service Salary Increase Increase Age \$43,394 January 1, 2004 38.5 12.0 N/A N/A January 1, 2005 37.9 11.3 \$44,256 N/A N/A \$44,442 3.63% January 1, 2006 38.1 11.6 4.50% 4.00% January 1, 2007 37.5 10.8 \$46,305 5.19% 37.5 10.4 \$48,199 4.00% 3.44% January 1, 2008 January 1, 2009 37.9 11.0 \$51,008 4.00% 3.69% January 1, 2010 38.9 10.8 \$50,854 4.00% 2.06% January 1, 2011 39.3 11.0 \$55,477 4.00% 8.14% July 1, 2011 37.9 10.0 \$46,046 1.98% N/A July 1, 2012 37.4 9.5 \$48,806 4.00% N/A









# Active Age-Service-Salary Table

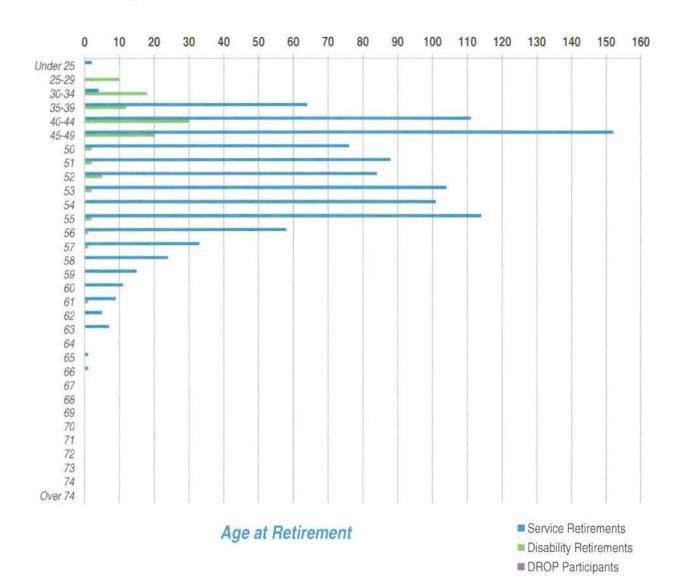
Table IV-D

Attained					Complet	ed Years o	f Service				
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 25	9	75	0	0	0	0	0	0	0	0	84
Avg.Pay	16,791	33,443	0	0	0	0	0	0	0	0	31,659
25 to 29	26	272	36	0	0	0	0	0	0	0	334
Avg.Pay	15,165	38,829	47,097	0	0	0	0	0	0	0	37,878
			XX								344
30 to 34	14	160	189	28	0	0	0	0	0	0	391
Avg.Pay	13,971	38,783	46,330	50,380	0	0	0	0	0	0	42,373
35 to 39	5	77	109	74	12	0	0	0	0	0	277
Avg.Pay	13,124	38,713	48,240	50,855	59,035	0	0	0	0	0	46,124
Avg.r dy	10,124	00,710	40,240	30,033	55,055	0					40,124
40 to 44	4	41	51	75	115	25	0	0	0	0	311
Avg.Pay	8,754	42,043	47,356	53,144	60,845	62,751	0	0	0	0	53,780
450000	725	F27167		10000	2000	ENG45	.040				38.22.33
45 to 49	0	24	37	18	57	119	36	0	0	0	291
Avg.Pay	0	44,101	47,483	52,470	60,431	67,863	72,132	0	0	0	61,432
50 to 54	0	7	7	10	16	53	58	3	0	0	154
Avg.Pay	0	44,423	47,048	53,649	60,734	65,249	71,992	129,422	0	0	66,043
					.T.		*	7-11	76	5)	1,5/3/8/2 1/04
55 to 59	0	0	0	3	4	9	5	2	1	0	24
Avg.Pay	0	0	0	52,948	64,855	63,917	68,739	88,099	75,965	0	66,224
60 to 64	<b>0</b>	1 000	<b>0</b>	0	<b>0</b> 0	65 100	0	67.001	0	0	50 400
Avg.Pay	0	45,868	U	U	U	65,129	0	67,301	U	0	59,433
65 & up	0	0	0	0	0	0	1	0	0	0	1
Avg.Pay	0	0	0	0	0	0	71,005	0	0	0	71,005
							N#				.//
Total	58	657	429	208	204	207	100	6	1	0	1,870
Avg.Pay	14,511	38,653	47,113	51,921	60,692	66,392	71,870	105,294	75,965	0	48,806



# Inactive Participant Data

# Table IV-E



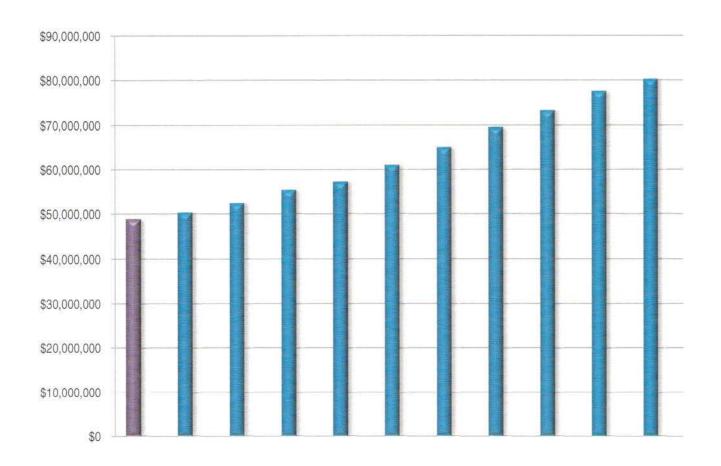
### Average Monthly Benefit

Service Retirements	\$3,216.90
Disability Retirements	\$2,745.95
Beneficiaries Receiving	\$1,548.06
DROP Participants	Not applicable
Deferred Vested Participants	\$721.79
Deferred Beneficiaries	Not applicable



# Projected Benefit Payments

# Table IV-F



<u>Actual</u>		
For the period July 1	2011 through June 30	20

\$48,746,000

### Projected

110/00100
For the period July 1, 2012 through June 30, 2013
For the period July 1, 2013 through June 30, 2014
For the period July 1, 2014 through June 30, 2015
For the period July 1, 2015 through June 30, 2016
For the period July 1, 2016 through June 30, 2017
For the period July 1, 2017 through June 30, 2018
For the period July 1, 2018 through June 30, 2019
For the period July 1, 2019 through June 30, 2020
For the period July 1, 2020 through June 30, 2021
For the period July 1, 2021 through June 30, 2022

\$50,341,952 \$52,428,786 \$55,343,417 \$57,244,474 \$61,048,548 \$64,992,673 \$69,497,602 \$73,302,244 \$77,588,583 \$80,226,046



### Summary of Actuarial Methods and Assumptions

Table V-A

#### 1. Actuarial Cost Method

Individual entry age normal cost method. Under this actuarial cost method, a level funding cost is developed with respect to each benefit for each participant. The level funding cost for each benefit applies to the period beginning when the participant's service commences and ending when the participant is assumed to cease active participation due to each respective decrement. The actuarial accrued liability is equal to the accumulated level funding cost to the valuation date for all participants. The normal cost is equal to the level funding cost for the year immediately following the valuation date for all active participants.

#### 2. Asset Method

The actuarial value of assets is equal to the market value of assets.

#### 3. Interest (or Discount) Rate

7.75% per annum

#### 4. Salary Increases

Plan compensation is assumed to increase at the rate of 4.00% per annum, unless actual plan compensation is known for a prior plan year.

#### 5. Decrements

Pre-retirement mortality:

Sex-distinct rates set forth in the RP-2000 Mortality Table for non-annuitants, projected to 2007 by Scale AA, as published by the IRS for purposes of IRC section 430; deaths prior to retirement are assumed not to be service-connected; future generational improvements in mortality have not been reflected.

Post-retirement mortality:

Sex-distinct rates set forth in the RP-2000 Mortality Table for annuitants, projected to 2007 by Scale AA, as published by the IRS for purposes of IRC section 430; future generational improvements in mortality have not been reflected.

Disability:

Sex-distinct rates set forth in the Wyatt 1985 Disability Study (Class 4); 75% of disabilities are assumed to be service-connected.



# Summary of Actuarial Methods and Assumptions

### Table V-A

(continued)

Termination:

Withdrawal rates were derived from a study of actual plan experience covering the period 1982 through 1986. A sample of the withdrawal rates is set forth in the following table:

Age	Rate	Age	Rate	Age	Rate	Age	Rate
20	15.0%	30	7.8%	40	2.30%	50	0.956%
25	11.4%	35	4.9%	45	1.35%	55	0.000%

· Retirement:

Retirement is assumed to occur at normal retirement age.

#### 6. Unused Vacation

All participants are assumed to have accumulated 30 days of unused vacation upon termination of employment, retirement, or death.

#### 7. Payroll Increase and Amortization Period

Total payroll has been assumed to grow at the rate of 4.00% per year for purposes of amortizing the unfunded actuarial accrued liability as a level percentage of payroll; the amortization period is established by City ordinance as a closed 30-year period beginning July 1, 2011.

### 8. Expenses

Administrative expenses are assumed to be 0.50% of future payroll. In addition, the interest rate set forth in item 3. above is assumed to be net of investment expenses and commissions.

### 9. Cost-of-Living Adjustment

We have assumed that all eligible retirees will receive an automatic cost-of-living adjustment equal to 3.00% per annum.

### Surviving Beneficiaries

Those active participants who are making the additional 1% employee contribution to provide a survivor benefit to their eligible beneficiaries are assumed to have only one surviving beneficiary of the opposite gender of the employee. Males are assumed to be three years older than females for this purpose.



# Changes in Actuarial Methods and Assumptions

Table V-B

No methods or assumptions have been changed from those used to complete the previous valuation.



Table VI-A

#### 1. Monthly Accrued Benefit

For participants who are hired after August 31, 2011:

1% of Average Monthly Earnings multiplied by up to 80 years of Creditable Service For participants who are hired during the period July 1, 2010 through August 31, 2011:

2% of Average Monthly Earnings multiplied by up to 50 years of Creditable Service For all other participants:

3% of Average Monthly Earnings multiplied by up to 26.667 years of Creditable Service

### Normal Retirement Age and Benefit

#### Age

Any age with at least 30 years of Creditable Service (only for participants who are covered by the '05 Amendment); or

Age 55 with at least 10 years of Creditable Service (only for participants who are hired prior to July 1, 2010); or

Age 55 with at least 15 years of Creditable Service (only for participants who are hired prior to September 1, 2011); or

Age 57 with at least 15 years of Creditable Service; or

Age 65 with at least 5 years of Creditable Service

#### Amount

Monthly Accrued Benefit

#### Form of Payment

Life annuity (for those participants without an eligible beneficiary); or

75% joint and contingent annuity (for those participants with an eligible beneficiary; benefits continue in equal shares to the participant's dependent children upon the death of the participant's spouse or domestic partner or, for participants not covered by the '86 Amendment, upon the remarriage of the participant's spouse or domestic partner; survivor benefits are actuarially adjusted with respect to participants who are hired after August 31, 2011)

Note: All annuity forms of payment include an automatic cost-of-living adjustment effective each January 1 based on the increase in the Consumer Price Index as of the preceding November 1 and limited to 3% (*limited to 1% with respect to participants who are hired after August 31, 2011*). All annuity forms of payment also provide a minimum payout equal to the employee's accumulated contributions, with interest credited after 1985 at the rate of 5% per year (or less than 5% with respect to any year during which the trust fund earns less than 5% on its investments).



### Table VI-A

(continued)

#### Early Retirement Age and Benefit

Age

Any age with at least 10 years of Creditable Service Service (15 years of Creditable Service for participants who are hired after June 30, 2010; minimum age of 47 for participants who are hired after August 31, 2011)

#### Amount

Monthly Accrued Benefit (payable at Normal Retirement Age); or

Monthly Accrued Benefit reduced by ½% for each of the first 60 months and by ¼% for each additional month by which the participant's Early Retirement Age precedes Normal Retirement Age (payable at Early Retirement Age and applicable only to those participants who are hired prior to September 1, 2011); or

Monthly Accrued Benefit reduced by ½% for each month by which the participant's Early Retirement Age precedes Normal Retirement Age (payable at Early Retirement Age and applicable only to those participants who are hired after August 31, 2011); or

Monthly Accrued Benefit reduced by ¼% for each month by which the participant's Early Retirement Age precedes age 55 (payable at Early Retirement Age and only applicable if the participant was hired prior to April 1, 1978 and has earned at least 25 years of Creditable Service)

#### Form of Payment

Same as for Normal Retirement

### Delayed Retirement Age and Benefit

Age

After Normal Retirement Age

Amount

Monthly Accrued Benefit

Form of Payment

Same as for Normal Retirement



Table VI-A

(continued)

### 5. Disability Retirement Eligibility and Benefit

### Eligibility

All active participants are eligible if the disability is service-connected; At least five years of Creditable Service is required otherwise.

#### Condition

The participant must become "totally and permanently disabled" and must remain so disabled until age 55. "Totally and permanently disabled" means the participant is in a continuous state of incapacity due to illness or injury, is prevented from performing his regular assigned or comparable duties during the first 12 months of his disability, and is thereafter prevented from engaging in any occupation for which he is or becomes reasonably qualified by education, training, or experience. With respect to participants who are not covered by the '86 Amendment, the participant must only be prevented from performing his regular assigned or comparable duties during the entire period of his disability.

#### Amount

For participants who incur a catastrophic injury in the line of duty:

100% of the top salary for the grade and position occupied by the participant at the time of disability

For all other participants who are covered by the '86 Amendment:

Greater of 50% of Average Monthly Earnings at the time of disability or Monthly Accrued Benefit, offset by worker's compensation payments such that the combination of payments does not exceed 75% of the participant's salary at the time of disability (payable until the earlier of recovery from disability or Normal Retirement Age); and

Monthly Accrued Benefit based on Average Monthly Earnings at the time of disability and Creditable Service including the period during which the participant was disabled, but excluding any cost-of-living adjustments that were previously applied to the participant's disability payments (payable at Normal Retirement Age)

For all other participants with a service-connected disability:

Greater of 70% of the top salary for the grade and position occupied by the participant at the time of disability or Monthly Accrued Benefit, offset by worker's compensation payments such that the combination of payments does not exceed 100% of the participant's salary at the time of disability

For all other participants:

Monthly Accrued Benefit, offset by worker's compensation payments such that the combination of payments does not exceed 100% of the participant's salary at the time of disability

#### Form of Payment

Same as for Normal Retirement



### Table VI-A

(continued)

#### 6. Deferred Vested Benefit

Age

Any age with at least five years of Creditable Service

Amount

Monthly Accrued Benefit multiplied by the participant's Vested Percentage and payable at age 60

Form of Payment

Same as for Normal Retirement

#### 7. Pre-Retirement Death Benefit

For participants who die in the line of duty and who are covered by the '86 Amendment:

100% of the participant's base salary at the time of his death, offset by worker's compensation or other payments received for line of duty injuries prior to the participant's death (payable for the first two years after the participant's death); and

75% of the Monthly Accrued Benefit (payable thereafter)

For all other participants who die in the line of duty:

100% of the participant's base salary at the time of his death, offset by worker's compensation or other payments received for line of duty injuries prior to the participant's death (payable for the first two years after the participant's death); and

75% of the greater of: (a) the Monthly Accrued Benefit, or (b) 70% of the top salary for the grade and position occupied by the participant at his death (payable thereafter)

For all other participants:

75% of the Monthly Accrued Benefit



### Table VI-A

(continued)

### 8. Vested Percentage

Retirement benefits with respect to those participants who are hired prior to July 1, 2010 become vested in accordance with the following schedule:

Years of Creditable Service	Vested Percentage
Less than five	0%
At least five, but less than six	25%
At least six, but less than seven	30%
At least seven, but less than eight	35%
At least eight, but less than nine	40%
At least nine, but less than 10	45%
At least 10	100%

Retirement benefits with respect to those participants who are hired after June 30, 2010 become vested in accordance with the following schedule:

Years of Creditable Service	Vested Percentage	
Less than five	0%	
At least five, but less than six	25%	
At least six, but less than seven	30%	
At least seven, but less than eight	35%	
At least eight, but less than nine	40%	
At least nine, but less than 10	45%	
At least 10, but less than 11	50%	
At least 11, but less than 12	55%	
At least 12, but less than 13	60%	
At least 13, but less than 14	65%	
At least 14, but less than 15	70%	
At least 15	100%	



### Table VI-A

(continued)

#### Average Monthly Earnings

The participant's Average Monthly Earnings is equal to: (a) the average of the participant's Base Salary for the highest 36 consecutive months during his period of Creditable Service; plus (b) the difference between the highest and lowest daily rate of pay during such 36-month period multiplied by the days of unused sick leave and divided by 36; plus (c) a credit based on accumulated unused vacation. (The averaging period is 120 months with respect to participants who are hired after August 31, 2011 and average monthly earnings does not include unused sick leave for these participants.)

#### Base Salary

The employee's basic salary excluding overtime pay and other special compensation; pursuant to IRC section 401(a)(17), total annual plan compensation is limited to \$200,000 as indexed.

#### 11. Employee Contribution

All participating employees must make the required pre-tax contribution to the plan. The required contribution for participants who were hired prior to 1984 is 8% of basic salary for those participants who have an eligible beneficiary and 7% of basic salary for those participants who do not have an eligible beneficiary. The required contribution for participants who were hired during the period 1984 through August 31, 2011 is 13% of basic salary (8% prior to November 1, 2011) for those participants who have an eligible beneficiary and 12% of basic salary (7% prior to November 1, 2011) for those participants who do not have an eligible beneficiary. The required contribution for participants who are hired after August 31, 2011 is 8% of basic salary. An eligible beneficiary is the participant's legal spouse, registered domestic partner, or unmarried child under the age of 18. The participant must have been married or registered to his legal spouse or domestic partner for at least one year prior to his death in order for such individual to be an eligible beneficiary. (During the period March, 1994 through June, 2009, the required contribution was 1% lower for all participants; prior to March, 1994, the contribution was made on an after-tax basis.)



Table VI-A

(continued)

#### Creditable Service

Creditable Service includes "base creditable service" (plus an "unused sick leave service credit" for those participants who were hired prior to September 1, 2011) plus military service as required by federal law. Base creditable service is granted for all periods of full-time employment as a firefighter with the City of Atlanta provided that the employee has made the required contribution for such period of service. With respect to eligible participants, an unused sick leave service credit is granted by dividing the participant's days of unused sick leave by the number of work days set forth in the following chart:

Years of Base Creditable Service	Work Days
Less than five	239
At least five, but less than 10	236
At least 10, but less than 15	233
At least 15, but less than 20	230
At least 20	226

Creditable Service also includes other service with the City of Atlanta if the relevant contributions are transferred into this plan and may include prior service with the State of Georgia, Fulton County, Dekalb County, or as a teacher in a public school system or private college or university within the State of Georgia if the required contribution is made to the plan.

### 13. Participation Requirement

All full-time police officers employed by the City of Atlanta are eligible to participate in the plan.

#### 14. Plan Effective Date

April 1, 1978



### Summary of Plan Amendments

Table VI-B

Since the previous valuation was completed, the plan was amended effective November 1, 2011 to increase the employee contribution rate for participants hired during the period 1984 through August 31, 2011 by 5.00% of plan compensation. In addition, the following plan changes were adopted with respect to participants who are hired after August 31, 2011:

- (1) The benefit formula multiplier has been reduced to 1.00% with a maximum benefit equal to 80% of average monthly earnings;
- (2) The employee contribution rate has been reduced to 8.00% of plan compensation;
- (3) The averaging period has been increased to 10 years for purposes of determining average monthly earnings;
- (4) The normal retirement age has been increased to age 57;
- (5) The earliest retirement age is age 47 for those individuals who have earned less than 30 years of service;
- (6) The early retirement reduction has been increased to 6.00% per year;
- (7) Unused sick leave is excluded from plan compensation;
- (8) The automatic annual cost-of-living adjustment (COLA) has been limited to 1.00% per year; and
- (9) The normal form of payment has been changed to a single life annuity with a survivor pension equal to 75% of an actuarially adjusted pension, where the actuarial adjustment is equal to the ratio on the date of death of the present value of the remaining life annuity payable to the retiree to the present value of a life annuity payable to the beneficiary.

